

# Division of Waste Management Solid Waste Section

<b>UNIT</b>	UNIT TYPE:													
Lined MSWLF		LCID		YW		Transfer		Compost		SLAS		COUNTY: Alamance		
Closed MSWLF		HHW		White goods		Incin	X	T&P		FIRM		PERMIT NO.: <b>01-02</b>		
CDLF		Tire T&P / Collection		Tire Monofill		Industrial Landfill		DEMO		SDTF		FILE TYPE: COMPLIANCE		

Date of Site Inspection: May 20, 2014 Date of Last Inspection: May 21, 2013

### **FACILITY NAME AND ADDRESS:**

Stericycle, Inc. Medical Waste Incinerator Facility 1168 Porter Avenue Haw River, NC 27258

**GPS COORDINATES**: N: <u>36.06599</u> E: <u>-79.34881</u>

## **FACILITY CONTACT NAME AND PHONE NUMBER:**

Stericycle, Inc.

A. Alan Skrzypczak, Facility Manager

w. 336-578-8901 x.24

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askrzypczak@stericycle.com

### **FACILITY CONTACT ADDRESS:**

Stericycle, Inc.

Don Nuss, Regional Environmental Manager – Atlantic Region 3614 Hoskins Court Hamilton, OH 45011

dnuss@stericycle.com

#### **PARTICIPANTS**

John Patrone, Environmental Senior Specialist - Solid Waste Section (SWS)

Shawn McKee, Environmental Senior Specialist - SWS

Bill Patrakis, Environmental Senior Specialist – SWS

Don Nuss, Regional Environmental Manager (Atlantic Region) - Stericycle, Inc.

A. Alan Skrzypczak, Facility Manager – Stericycle, Inc.

Carol McCormick, Regional Operations Manager – Stericycle, Inc.

Andrea Carden, Transportation – Stericycle, Inc.

### **STATUS OF PERMIT**:

Permit To Operate (PTO) issued May 4, 2012 PTO expiration date January 31, 2016

### **PURPOSE OF SITE VISIT:**

Comprehensive Inspection

### **STATUS OF PAST NOTED VIOLATIONS:**

None

### Division of Waste Management Solid Waste Section

Page 2 of 5

#### **OBSERVED VIOLATIONS**

None

The item(s) listed above were observed by Section staff and require action on behalf of the facility in order to come into or maintain compliance with the Statutes, Rules, and/or other regulatory requirements applicable to this facility. Be advised that pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Laws, Regulations, Conditions of a Permit, or Order under Article 9 of Chapter 130A of the N.C. General Statutes. Further, the facility and/or all responsible parties may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

#### ADDITIONAL COMMENTS

On May 20, 2014, John Patrone, Shawn McKee, and Bill Patrakis met with Don Nuss, Alan Skrzypczak, Carol McCormick, and Andrea Carden to conduct a comprehensive inspection of the Stericycle, Inc. Medical Waste Incinerator Facility on Porter Avenue in Haw River, Alamance County.

- 1. The facility is a medical waste treatment operation consisting of two incinerator units.
- 2. A medical waste transfer station is operated at the facility.
- 3. During the inspection both incinerators were in operation.
- 4. The facility incinerates medical waste (regulated and non-regulated), United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service Plant Protection and Quarantine (APHIS-PPQ) regulated garbage, controlled substances, chemotherapeutic waste, healthcare industry documents, and pharmaceuticals.
- 5. Stericycle, Inc. vehicles transport ~ 90 percent of the material it receives.
- 6. Ms. Carden stated that ~ 90 percent of all out of state trailers are refrigerated, customer loaded trailers are refrigerated, and that local route trailers from the facility are commonly not refrigerated.
- 7. The facility uses an electronic system called Road Net to track drivers dispatched on local routes from Haw River. Driver data is displayed on a large monitor. The system uses GPS to obtain real-time information regarding route, driver status, truck location, etc.
- 8. The office is open Monday through Friday 8:00 am to 5:00 pm. Incineration occurs 24 hours, 7 days a week.
- 9. The facility has accepted waste material from various states, Washington, DC, and Puerto Rico.
- 10. The facility permit, site plan, operations plan, and contingency plan were discussed.
- 11. The facility provides training for plant personnel updated as needed. Training categories are as follows: administrative, driver, healthcare compliance specialist, hospital entry CVO requirements, IWSS, maintenance, miscellaneous, plant worker, Rx tech, APHIS waste, baler, compressed gases, and dental waste. Annual training was conducted on October 26, 2013. Personal device training was conducted on March 14 through March 19, 2014.
- 12. Regulated medical waste boxes have a label with barcode containing generator information. The regulated medical waste boxes observed contained the universal biohazard symbol and medical waste statement. Individual box barcode is scanned at pickup and upon incineration. Boxes on client-loaded trailers (refrigerated trailers stored at their place of business) are not scanned upon pickup. The facility records trailer pickup and receipt date. Scanned information is sent to the facility database updated accordingly to include treatment date, generator billing, etc.
- 13. During the inspection 10 boxes were observed in the operations area that did not contain generator information labels. Facility personnel stated that the boxes came off of a client-loaded trailer and that there was no way to know generator labels were not on the boxes until the trailer was unloaded. Mr. Nuss and Ms. Carden stated that the client would be contacted regarding this issue, instructed about the importance of the labeling requirement, and given additional generator labels (facility provides labels to clients). The Stericycle, Inc. sales team will visit the client for further discussion/education. And when possible, Stericycle, Inc. drivers will spot-check the client loaded trailers upon pickup.

### Division of Waste Management Solid Waste Section

Page 3 of 5

- 14. The facility maintains records of the amount of solid waste received (per box/container) and origin of loads (daily records are from 12:01am to 11:59 pm). Records were verified for June 7, 2013 = 2,914 containers at 69,804 lbs, October 10, 2013 = 1,332 containers at 34,267.81 lbs, February 14, 2014 = 976 containers at 27,363.8 lbs, and March 31, 2014 = 989 containers at 24,558.2 lbs.
- 15. Currently, the facility operates each incinerator at a maximum of 1700 lbs/hr. The corresponding daily throughput is 81,600 lbs/day.
- 16. The facility routinely operates both incinerators. Scheduled maintenance is conducted for each incinerator. Incinerator maintenance occurred on: June 30 July 3, 2013, August 4 8, 2013, September 7 9, 2013, and April 13 16, 2014.
- 17. Ms. Carden stated that during incinerator maintenance, throughput is cut to ~ 2/3. Priority is given to local route waste material to be incinerated. Waste material on refrigerated trailers is stored accordingly and incinerated within regulatory requirement.
- 18. Facility throughput is ~ 2M lbs/month. The monthly throughput includes decreased waste acceptance during incinerator scheduled maintenance.
- 19. Monthly ash disposal tonnage was verified for September 2013 = 244.07, December 2013 = 205.04, and April 2014 = 257.8.
- 20. The facility annual report (FAR) dated July 12, 2013 was received by the SWS. Facility throughput for July 2012 through June 2013 is 12,474.7 tons or 24,949,408.66 lbs. The amount of ash produced from incineration during the same time period is 3,686.47 tons.
- 21. Incinerator ash is disposed of at the Republic Services of North Carolina LLC Upper Piedmont Regional Landfill (73-04).
- 22. Ash is stored on site in 20 yd<sup>3</sup> roll-off containers. Generally, two containers are filled with ash daily and two containers a day, six days a week, are hauled to the landfill.
- 23. During the inspection two roll-off containers were en route to the landfill and four were on site (1 full covered and stored outside, 1 empty covered and stored outside, and 2 dewatering).
- 24. The facility has five scales (within the operations area): two floor scales, two belt scales, and a portable scale. The scales were tested by Carlton Scale on January 15, 2014 and April 7, 2014. Zero error is indicated for each test.
- 25. The facility has a Division of Air Quality (DAQ) Title V permit, number 05896/T21, issued 05/17/13 expiration 01/31/16.
- 26. Facility (DAQ) emissions tests were conducted on November 19 & 20, 2013 and February 25, 2014. Compliance is indicated. The facility conducted its most recent emissions test on May 6, 7 & 8, 2014.
- 27. The two facility incinerators are natural gas automatic feed dual chamber controlled air Joy Energy Systems, Inc. T-Series units, model number 2500 TES.
- 28. As designed, the maximum charging rate for each incinerator is 1,911 lbs/hour or 91,728 lbs/day for both units.
- 29. The DAQ permit states the maximum charging rate for unit 1 is 1,952.6 lbs/hour and for unit 2 is 2,091.9 lbs/hour.
- 30. If the facility plans to increase the charging rate of the incinerators, from 1,911 lbs/hour to current DAQ charging rates, the SWS should be contacted prior to a change in operation.
- 31. The facility maintains continuous monitoring records of the primary and secondary chamber temperatures. Records were verified for: 05/19/13, 06/29/13, 06/30/13, 01/01/14, and 05/05/14.
- 32. During the inspection incinerator unit No. 1 was operating at 1473° F in the primary chamber and 1907° F in the secondary chamber and 45.8 inches water column (W.C.). And incinerator unit No. 2 was operating at 1517° F in the primary chamber and 1925° F in the secondary chamber and 44.6 inches W.C.
- 33. It was stated that the incinerator reduces material to ash in  $\sim 3-4$  hours and is batch-fed  $\sim$  every 6 minutes. The ash represents a 68-70 percent volume reduction.
- 34. The facility has an Industrial User Pretreatment Permit (No. 0030) from the City of Graham issued July 1, 2011 expiration June 30, 2016.
- 35. All process water associated with facility operation is treated on site. Treated water is piped to the City of Graham wastewater treatment plant (WWTP).

### Division of Waste Management Solid Waste Section

Page 4 of 5

- 36. Reusable containers are washed with a mycobactericidal disinfectant. The containers are washed on the floor adjacent to the incinerators. Floor drains route to the process water treatment system.
- 37. Vehicle trailers are cleaned with a pressure washer and mycobactericidal disinfectant in the truck wash bay. The truck wash bay floor drains are piped to tanks for reuse in the incinerator ash water quench process.
- 38. Each incinerator is equipped with an ash removal process. Ash drops from the rear of the incinerator into a water-quench tank. A mechanical arm rakes the ash from the quench tank dragging it up a dewatering ramp. The ash is deposited into a 2 yd³ container. Facility personnel sort out large pieces of ash (2 4 times/hour) raking it into a 30 gallon cart. The sorted ash is re-incinerated.
- 39. The 2 yd<sup>3</sup> containers are dumped into 20 yd<sup>3</sup> roll-off containers. The 20 yd<sup>3</sup> containers are dewatered on a covered cement slab. Floor drains for the ash water from the dewatering operation are piped for reuse in the incinerator ash water-quench process.
- 40. The facility conducts two representative ash samples annually. It conducts a toxicity characteristic leaching procedure (TCLP), paint filter test for liquids, and pH. Results were reviewed for samples analyzed by Pace Analytical Services, Inc. taken on October 8, 2013 and May 7, 2014. The results show compliance. The facility also conducted an ash sample for lead on February 5, 2014. The result shows compliance. Composite samples are gathered from a 20 yd<sup>3</sup> roll-off container.
- 41. The facility waste screening process consists of: generator requirements to properly package and label boxes, drivers trained to reject boxes if inaccurately packaged and/or labeled, client contract requirement to abide by waste acceptance rules, Stericycle, Inc. sales personnel meet with and educate clients, related information available via printed material and online, employee training regarding unacceptable waste, and routine screening of ash noting material requiring reburn.
- 42. Ms. Carden stated that a contingency plan (pertaining to the transport of regulated medical waste) is maintained in each vehicle and that drivers are familiar with the plan.
- 43. The universal biohazard symbol is displayed on trailers.
- 44. During the inspection the facility had five refrigerated trailers on site containing waste material. Trailer temperature ranged from 32° F and 43° F and hold time was < 7 days. The facility also had four unrefrigerated trailers containing waste material which had been received earlier (05/20/14).
- 45. Ms. Carden stated that material pertaining to the medical waste transfer station is sorted on the receiving floor and quickly loaded into a refrigerated transfer trailer. A transfer trailer is shipped-out to other Stericycle, Inc. facilities ~ twice a week.
- 46. Transit time was verified for four containers observed on the operations line. The facility database indicates that one container was picked up from a generator in MA on May 9, 2014, two containers from generators in NJ on May 15, 2014, and one container from a generator in MD on May 19, 2014. All trailers were refrigerated. Trailer receipt date (at the facility) ranges from May 16, 2014 through May 20, 2014.
- 47. Facility financial assurance is under review by the SWS.
- 48. The facility has permit information posted in the office lobby.
- 49. The facility is secured by a locked gate.
- 50. Entry to the facility is via intercom located outside of the gate.
- 51. Access roads are of all-weather construction.
- 52. The PTO expiration date is January 31, 2016.
- 53. The PTO renewal application shall be submitted to the SWS by July 31, 2015.

# Division of Waste Management Solid Waste Section

Page 5 of 5

Please contact me if you have any questions or concerns regarding this inspection report.

Phone: <u>336-771-5095</u> Fax: <u>336-771-4631</u>

John Patrone, Environmental Senior Specialist Division of Waste Management, NCDENR

Sent on: May 29, 2014	X	Email	Hand delivery	US Mail	Certified No. [_]

Electronic Copies: Jason Watkins, Western District Supervisor - SWS

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